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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/579,528	05/26/2000	Ilan Barak	P-2966-US	7664

7590 05/08/2002

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EXAMINER

NGUYEN, KHANH V

ART UNIT PAPER NUMBER

2817

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	Application No. 09/579,528	Applicant(s) BARAK ET AL	
	Examiner Khanh V. Nguyen	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9-24, 31 and 33-36 is/are rejected.
- 7) ☒ Claim(s) 5, 8, 25-30 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-3, 5-36 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

Claim 10 is objected to because of the following informalities: page 2, line 5, “,” should correctly be --.--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 6, 7, 9-24, 31, 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (5,903,854) in view of Meinzer (5,012,200).

Regarding claims 1, 2, 22, 23, Abe et al. (Fig. 9) disclose the claimed invention except that transmission power amplifier (15) is not an outphasing system or Chireix system. Abe et al. (Fig. 9) disclose a transceiver circuit comprising: an input signal from microphone (9b), a modulator (11), an IF variable gain amplifier (12), a mixer (13), an RF variable gain amplifier (14), a power controller (16) may be read as controller, and a transmission power amplifier (15) which is **broadly** read as an outphasing system, wherein transmission power control information (S3) may be read as a first range of output power and a signal through bias controller (17) may be read as a second range of output power.

Meinzer (Figs. 2a or 4a) discloses an outphasing modulator (Fig. 2a) or a Chireix transmitter, col. 4, lines 53-60, wherein the outphasing/Chireix system comprises phase control network or control network (8), shunt circuits (+jB and -jB) may be read as shunt reactances coupled to the respective outputs of the plurality of amplifiers (A and B).

Accordingly, it would have been obvious in view of the references, taken as a whole, to have modified the transmission power amplifier (15) of Abe et al. to have included a Chireix, as taught by Meinzer. Such a modification would have increased the amplification efficiency and provide highly efficient linear amplifiers (see, col. 2, lines 56-65), thereby suggesting the obviousness of such a modification.

Regarding claims 3, 10, 11, 13, 24, 36, (see above rejection) the signal strength information (S1) from antenna (1) may be read as a desired output signal and instruction signal (S2) may be read as signal having threshold and power controller (16) for comparing the two signals (S1 and S2), and the difference of two signals ( $S1 < S2$  or  $S1 \geq S2$ ) will determine the proper control functions as designed choice, such as when ( $S1 < S2$ ), controller (16) controls amplifiers (RF and IF) and when ( $S1 \geq S2$ ) controller (16) controls power amplifier (15) which has been modified with a Chireix/outphasing system.

Regarding claims 6, 9, 15-18, 31, (see above rejection), wherein modifying the amplitude/power of an input signal by controlling at least one of the IF and RF amplifier. Abe et al. (Fig. 9) disclose power controller (16) for controlling amplifiers (RF and IF) via control signal (S3).

Regarding claims 7, 12, 14, Meinzer disclosed a phase control network which is inherently seen as having plurality of discrete phase values.

Regarding claims 19-21, 33-35 (see above rejection), wherein modifying the amplitude of an input signal by controlling at least one of the IF and RF amplifier. Abe et al. (Fig. 9) disclose power controller (16) for controlling amplifiers (RF and IF) via control signal (S3), and a bias controller (17) for controlling the bias of power amplifier (15) which has been modified with a Chireix/outphasing system. And claims 20, 21, 34, 35 would be inherent in the operation of the reference circuit.

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***Allowable Subject Matter***

Claims 5, 8, 25-30, 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following U.S. Patents contain teaching of power control circuit:

Rich (5,862,460); Ichihara (6,330,455)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh V. Nguyen whose telephone number is (703) 306-9058. The examiner can normally be reached from 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service at (703) 872-9317.

KV

05/03/02

  
Robert Pascal  
Supervisory Patent Examiner  
Technology Center 2800